examine, in particular, the implications of a PSSA designation on the jurisdictional competences of coastal states.

Chapter 10: Legal Quality of the PSSA Guidelines and their Effect on Jurisdiction to Implement and Enforce Protective Measures

This treatise so far has highlighted the international legal framework for the protection of vulnerable marine areas and, in particular, the designation of PSSAs. From the point of view of coastal states, however, seeking designation of PSSAs is only worth the effort if it results – compared with the basic UNCLOS regime – in an expansion of their prescriptive and enforcement competences regarding the protection of the marine environment against threats posed by shipping activities. The issue of coastal states' competences is closely connected to the legal quality of the PSSA Guidelines. This chapter thus addresses both questions; first, what legal quality do the PSSA Guidelines possess, and secondly, to what extent, if any, do they entail implications for the balance of coastal states' rights and the freedom of navigation.

I. IMO Assembly Resolution A.982(24)

The PSSA Guidelines are contained in Resolution A.982(24), which was adopted by the Assembly on 1 December 2005. As has been detailed in Chapter 6, international organisations are competent to issue legal acts addressing matters within the purview set out by the respective organisation's constitution. These acts are only binding to the extent provided for by the underlying instrument, as well as in some exceptional cases. With respect to the PSSA Guidelines, I shall explore their legal basis and whether or not they must be complied with.

1. Legal Basis and Character of the PSSA Guidelines

There are three different ways by which the competence of IMO to adopt the PSSA Guidelines can be established. First, according to Article 2 lit. (a) in conjunction with Article 1 of the IMO Convention,[80] IMO has the competence to consider and make recommendations on, *inter alia*, "technical matters of all kinds affecting shipping engaged in international trade; [… and] the highest practical standards in matters concerning the maritime safety, efficiency of navigation and

[80] Convention on the International Maritime Organization, adopted on 6 March 1948, in force as from 7 January 1959, 289 *UNTS* 48. The text, as modified by amendments adopted by the Assembly, is reproduced in IMO, *Basic Documents*, Vol. I (London: IMO Publication 2004), pp. 7-25.

prevention and control of marine pollution from ships."[81] Article 15 lit. (j), more specifically, lists as one of the Assembly's function "[t]o recommend to Members for adoption, regulations and guidelines" concerning, amongst others, the effects of shipping on the marine environment. As no provision of the treaty attaches binding force to these recommendations, they generally do not entail legal obligations for IMO member states.

Secondly, autonomous decision-making competences have been introduced by MARPOL, COLREG, SOLAS and other IMO Conventions, which envisage the adoption of IMO resolutions to flesh out or amend their regimes.[82] However, these resolutions may only take effect within and for the regime they are adopted under. Thirdly, UNCLOS refers to IMO's recommendations and instruments both *expressis verbis* (for instance, Article 22(3) lit. (a)) and through its *rules of reference*, which have been mentioned earlier in this treatise.[83] Yet neither approach vests any express legislative competences with the IMO.

As identified by the preamble to the PSSA Guidelines, it is apparent that they were adopted pursuant to Article 15 lit. (j) of the IMO Convention.[84] Accordingly, they are not binding upon IMO member states and cannot be considered as belonging to the body of international treaty law. The further legal character has to be determined in the light of the peculiarities of international institutional law. As has been mentioned in Chapter 6[85], IMO, as well as other international institutions, may adopt legal acts that are directed either at the external sphere (i.e., member states) or at the internal sphere. Apparently, the PPSA Guidelines belong to the latter category, because they do not recommend any action to be taken by the member states, but primarily aim to determine IMO's conduct for the identification and protection of sensitive areas.[86] Hence, they are of mandatory character, but only as far as they establish criteria and procedural requirements that MEPC and other committees of IMO have to adhere to.[87] Where the guidelines contain rules to be followed by the member states, these rules may be qualified as an adjunct to the internal rules of procedure of MEPC. Still, they are formally non-mandatory, even though they arguably acquire *de facto* binding

---

[81] Cf. Art. 1(a) of the IMO Convention. This provision does not prevent IMO from addressing vessel-related threats to the marine environment other than pollution. It is commonly accepted that as the UN specialised agency responsible for international shipping, IMO has the competence to develop regulations on these problems as a necessary adjunct to its original duties.

[82] See Sec. III.1. of Chapter 6.

[83] Sec. III.4. of Chapter 4.

[84] The first recital of the guidelines' preamble refers to Art. 15(j) of the IMO Convention mentioned above. Indeed, the scope of the IMO Conventions, such as MARPOL and SOLAS, is too narrow to accommodate sufficiently the broad approach of the PSSA Guidelines.

[85] Sec. I.2. of Chapter 6.

[86] This view is shared by Gerold Janssen, *supra*, note 59, p. 87.

[87] As far as MEPC is concerned, the PSSA Guidelines represent an "other instrument" (as opposed to "any international convention") to whose provisions the committee must conform, "particularly as regards the rules governing the procedures to be followed". See Art. 41 of the IMO Convention.

force. For instance, requirements for the documentation to be submitted in support of a PSSA proposal use recommendatory language ("should") in the relevant paragraphs of the guidelines. However, MEPC is likely (and, of course, allowed) to reject a proposal which is not corroborated by sufficient information. Therefore the procedural requirements, and possibly other provisions, effectively amount to mandatory rules.

As far as the legal quality of APMs is concerned, it is obvious that binding force does not derive from the PSSA Guidelines. With respect to APMs that are not based on binding international law, their mandatory character therefore does not exist *prima facie*; it may only be construed if exceptional circumstances, as alluded to, *supra*, in Chapter 6, can be established.[88] Whether and how exceptional circumstances for these APMs can be identified will be addressed in the following section.

2. Binding Force of PSSAs and their Associated Protective Measures

Although, as has been seen in the previous section, the IMO Convention does not enable the Assembly (or any other organ of IMO) to adopt legal acts that obtain binding force for IMO member states, APMs may nevertheless turn out to be compulsory by virtue of UNCLOS. I have mentioned above that no UNCLOS provision directly authorises IMO to adopt mandatory regulations such as protective measures for certain specially protected areas. Even so, UNCLOS may provide for them to become mandatory – insofar as the APMs can be linked to an UNCLOS provision, they share its legal quality.[89] An express link could be established if the PSSA concept were to be construed as fleshing out Article 211(6), implementing broader obligations of Articles 192 and 194(5) or representing so-called "generally accepted international rules and standards." In the ensuing sections, I shall thus examine whether one of these exceptional cases applies with respect to the PSSA Guidelines.

a) PSSAs and Article 211(6) of UNCLOS

It has already been outlined in Chapter 4[90] that in order to combat vessel-source pollution, Article 211(6) lit. (a) and (c) allow coastal states to subject navigation in certain marine areas of their EEZ to tighter measures than those available under "generally accepted international rules and standards" in the sense of Article 211(5). Since both subparagraph (a) and (c) are of a framework character, the PSSA concept may be regarded as implementing Article 211(6).[91] At least with respect to the EEZ, APMs would be binding regardless of the legal quality of their underlying instrument.

---

88 Sec. II.1. of Chapter 6.

89 See further, *supra*, Sec. II.1.b) and III.2. of Chapter 6.

90 Sec. III.3.

91 This view was voiced by Liberia, Panama, the Russian Federation and certain shipping industry NGOs, see LEG 87/16/1, *Designation of a Western European PSSA – Comments on MEPC 49/8/1*, 15 September 2003, para. 8.

The concepts of PSSAs and UNCLOS special areas are very similar with respect to purpose, criteria, flexibility and the broad array of instruments available. However, a few critical differences remain.[92] First, PSSAs are designated by IMO, whereas areas under Article 211(6) are designated by the coastal state with IMO's endorsement; secondly, the criteria for designation under 211(6) must be met cumulatively, while it is sufficient for a potential PSSA to meet just one of the PSSA criteria; thirdly, the scope of Article 211(6) is confined to vessel-source pollution, whereas PSSAs address a broader range of threats; fourthly, in contrast to Article 211(6), the PSSA Guidelines deploy a buffer-zone approach to enhance the protection of marine areas.[93] Furthermore, it should be borne in mind that the PSSA Guidelines themselves refer to Article 211(6) as *one* of the legal bases for APMs, thus offering a broader set of protective measures.

These differences have been associated with the prevailing approaches on marine environment protection at the time the different instruments were drafted.[94] The extent to which PSSAs and UNCLOS special areas differ signifies that the PSSA Guidelines have not been developed to implement Article 211(6).[95] Hence, PSSA designations and APMs cannot be construed as acquiring mandatory character for the EEZ of coastal states by being linked to Article 211(6) of UNCLOS.

b) Implementation of General Obligations Contained in Part XII of UNCLOS

In preliminary thoughts on this topic, I have advanced the opinion that a PSSA designation and its APMs acquire binding force, because they can be construed as fulfilling broader obligations of Part XII of UNCLOS, namely Articles 192 and 194(5).[96] While Article 192 obliges states to protect and preserve the marine environment, Article 194(5) more specifically calls for the protection of fragile ecosystems and threatened habitats. In a similar vein, the WWF held that "IMO has [a] legal competence to adopt measures based on the general provisions of

---

[92] Cf. Louise de la Fayette, *supra*, note 67, pp. 155-226, at 190 et seqq.; Henning Schult, *Das völkerrechtliche Schiffssicherheitsregime* (Duncker&Humblot: Berlin 2005), p. 210 et seq.

[93] Rainer Lagoni, "Marine Protected Areas in the Exclusive Economic Zone", in A. Kirchner (ed.), *International Marine Environmental Law* (The Hague New York London: Kluwer Law International 2003), pp. 157-167, at 163.

[94] Louise de la Fayette, *supra*, note 67, p. 191 et seq.

[95] Cf. Rainer Lagoni, *supra*, note 93, p. 163 et seq.; Julian Roberts, "Compulsory Pilotage in International Straits: The Torres Straits PSSA Proposal", 37 *ODIL* (2006), pp. 93-112, at 95; Erik Jaap Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (The Hague Boston London: Kluwer Law International 1998), p. 441 et seqq. *Contra* Angelo Merialdi, *supra*, note 67, pp. 29-43, at 39.

[96] Markus Detjen, "The Western European PSSA – Testing a Unique International Concept to Protect Imperilled Marine Ecosystems", 30 *Marine Policy* (2006), pp. 442-453, at 446 et seqq.

UNCLOS and the authority conveyed on the IMO by that instrument."[97] This view has been contested within IMO.[98] Yet the opponents' reasoning was based on the ill-defined assumption that Article 211(6) rather than Article 194(5) is the legal basis for PSSAs; this interpretation has already been rebutted in the previous section.

A more compelling counter-argument can be produced by looking at the legal character of the programmatic norms of Part XII. They undoubtedly oblige each UNCLOS party to protect and preserve the marine environment, in particular rare or fragile ecosystems.[99] IMO is recognised by UNCLOS as a competent international organisation. As a consequence, it is responsible for contributing to the furtherance of UNCLOS' objectives, although it is not a party. However, these observations only explain why IMO should become active in developing policies aimed at preserving vulnerable marine areas and why it has the competence to act. Accordingly, Articles 192 and 194(5) may be fleshed out by the IMO. Yet the means at IMO's disposal do not go beyond what the IMO Convention provides for, i.e. non-binding resolutions of one of its organs. Apparently, relying on UNCLOS' broad environmental obligations cannot explain how a PSSA designation and APMs become legally binding. The binding force of an act of an international organisation can only be construed if it is based on, or can be linked to, an express treaty provision providing for certain acts to become mandatory.

c) APMs as Generally Accepted International Rules and Standards

As I have already explained, *supra*, in Section III.4 of Chapter 4, UNCLOS incorporates rules and standards that have been developed outside its regime through so-called rules of reference. The most important category of regulations referred to by UNCLOS are so-called "generally accepted international rules and standards," which encompass international treaties that have gained widespread ratification, IMO conventions that are in force and non-binding resolutions adopted by IMO with at least a great majority. These rules and standards may form a basis for coastal states' laws that apply to foreign vessels navigating in waters under their jurisdiction. The rules of reference may thus contribute to expanded coastal states' prescriptive competences, inasmuch as generally accepted international rules and standards for a particular activity exist. With regard to these observations, it must be examined whether APMs could be considered as representing generally accepted international rules and standards. As has been mentioned before, this issue is only relevant for APMs that do not acquire binding force by virtue of, for instance, a multilateral treaty. PSSA designations as such cannot represent generally accepted international rules and

---

[97] MEPC 52/8/4, *Proposed Amendments to Assembly Resolution A.927(22) to Strengthen and Clarify the Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas (PSSAs) – Comments on MEPC 52/8*, 18 August 2004, para. 13. Louise de la Fayette, *supra*, note 67, p. 186, appears to share this view.

[98] LEG 87/16/1, *supra*, note 91, *loc.cit.*

[99] For details, see, *supra*, Sec. III.1. of Chapter 4.

standards, since a designation does not entail any instrument that coastal states could implement.

aa) Feasibility of this Interpretation

Obviously, it is neither the PSSA Guidelines nor the actual IMO designation of an area which coastal states implement in waters under their jurisdiction, but APMs adopted in accordance with the guidelines. It could be argued that the term "rules and standards" refers to globally applicable, uniform vessel standards rather than to IMO measures that have been adopted for a specific area. However, the wording of the rules of reference does not support this assumption. The crucial issue is general acceptance within the IMO as the competent international organisation. If the international community, through IMO, agrees on certain instruments, UNCLOS incorporates these instruments into its regulatory regime, regardless of their geographical scope. Besides, individual measures aimed at regulating shipping in specific areas are a common phenomenon. Routeing measures, for instance, are always applied for clearly delineated parts of the sea by way of an IMO resolution. For a vessel's master, it makes no difference why he or she needs to adhere to certain rules in certain areas. Hence, if coastal states transpose APMs into their domestic regimes, they can base their laws on these resolutions, because they represent generally accepted international rules and standards. As has been said above[100], for parties to UNCLOS, APMs thereby also represent "applicable international rules and standards", because through inclusion by UNCLOS' rules of reference they become part of treaty law.

Given the above arguments, it can be concluded that APMs, adopted by IMO either unanimously or with an overwhelming majority, constitute generally accepted international rules and standards.[101] Inasmuch as marine areas are designated by IMO and are protected by APMs, coastal states are allowed to give effect to these APMs to the extent provided for by UNCLOS.[102] This conclusion is

[100] Sec. III.4. of Chapter 4.

[101] A similar interpretation is suggested by Louise de la Fayette, *supra*, note 67, p. 186, who acknowledges that "[t]he designation of PSSAs may also be considered as a response by IMO to the obligations set out in Article 211(1) for states acting through the competent international organisation to establish rules and standards to prevent pollution from vessels […]." Likewise Julian Roberts, *supra*, note 95, p. 94 et seq. Surprisingly, neither author refers to the adoption of APMs, even though they are at the core of the PSSA concept, or considers whether APMs become binding by virtue of UNCLOS' rules of reference. Veronica Frank, "Consequences of the *Prestige* Sinking for European and International Law", 20 *IJMCL* (2005), pp. 1-64, at 35, implicitly supports the interpretation argued for here, as she emphasises that "[a]ny additional measure will have to be assessed by the competent IMO committees (e.g. MEPC, MSC and NAV) and its adoption will always require the consent of the international community through the approval of the MEPC."

[102] That said, it must be acknowledged that generally accepted international rules and standards first and foremost oblige flag states, by way of Art. 211(2) of UNCLOS, to give effect to the regulations' content with respect to vessels flying their flag. However, with a view to the scope of this study and in the light of identified deficiencies in flag-

strongly consistent with general international law, that requires a soft-law instrument to become mandatory to be expressly linked to a multilateral treaty.[103] It is also consistent with the overall dynamic approach of UNCLOS: a PSSA would hardly have any positive effect were it merely to allow for measures to become mandatory that are already mandatory by virtue of other treaties.[104] This interpretation is supported by the fact that the use of rules of reference within UNCLOS is largely limited, as far as the balance between marine environment protection and navigation are concerned, to the EEZ and the territorial sea. UNCLOS' provisions dealing with coastal states' competences in straits used for international navigation[105] and archipelagic waters[106], i.e. areas where navigational rights are still considered to be particularly delicate, include similar, albeit limited, references to regulations established outside the UNCLOS regime.[107] In this context, it should be noted that even if APMs are considered to constitute generally accepted international rules and standards, not all IMO measures obtain mandatory character. While the PSSA Guidelines address all environmental threats posed by international shipping and envisage the adoption of respective APMs, some UNCLOS provisions (e.g. Article 211(5)) exclusively focus on vessel-source *pollution* of the marine environment. States are not permitted to give effect to APMs addressing forms of environmental degradation that the rules of reference do not cover.

As a further consequence of this reasoning, it can be noted that the remaining scope of application of Article 211(6) becomes virtually non-existent. By virtue of Article 211(5), coastal states may enact laws for their EEZ (binding upon all vessels navigating in the PSSA) that conform to APMs. The PSSA status as a prerequisite for an APM requires fewer conditions to be met than Article 211(6). Hence, a coastal state acquires the same competences from having a specific area of its EEZ designated as a PSSA as from having it approved as a special area under Article 211(6). Whether these observations amount to a violation of UNCLOS will be addressed below.

As a result, compulsory measures that do not have a legal basis in a multilateral treaty become binding if they can be said to be allowed by either Article 21 or Article 211(6) and if they are incorporated in the regulatory regime of UNCLOS

state compliance control, emphasis is placed here on coastal states as necessary complementary monitoring and enforcement entities.

[103] Philippe Sands and Pierre Klein, *Bowett's law of International Institutions*, Fifth ed. (London: Sweet & Maxwell 2001), para. 11-051.

[104] Likewise Nihan Ünlü, "Particularly Sensitive Sea Areas: Past, Present and Future", 3 *WMU Journal of Maritime Affairs* (2004), pp. 159-169, at 168 et seq.

[105] Art. 42.

[106] Art. 52 to 54.

[107] DOALOS, "'Competent or relevant international organizations' under the United Nations Convention on the Law of the Sea", 31 *LOSB* (1996), pp. 79-95, at 81. For coastal states' jurisdiction in international straits, reference is made to "applicable" international regulations. For a definition of this term, see, *supra*, Sec. III.4. of Chapter 4.

by one of its rules of reference.[108] As far as these APMs are concerned, it has become apparent in this section that the adoption of APMs follows a *three-tier approach*. First, measures can be chosen from those available under Articles 21 and 211(6) of UNCLOS. Secondly, IMO has the competence to adopt these measures as APMs by virtue of the PSSA Guidelines. Thirdly, they become legally binding if incorporated in the UNCLOS regime through a rule of reference.

bb) Legality of this Interpretation

IMO devised the PSSA Guidelines as a distinct concept to encompass a broader range of concerns – in terms of criteria, protective approach and geographical scope – than is possible under Article 211(6) lit. (a) and (b): PSSAs are not confined to tackling pollution, they are not limited to the EEZ and they require fewer criteria to be met. The PSSA Guidelines effectively provide for at least the same measures that are available under Article 211(6). However, if these protective measures are allowed to become effective by virtue of Article 211(5), they actually render paragraph 6 void. Although IMO is free to adopt any instrument it considers necessary for, *inter alia*, the protection of the marine environment and that falls within the ambit set by the IMO Convention, it must be asked, in the light of this observation, whether the PSSA Guidelines violate UNCLOS. It may be argued that UNCLOS as a "constitution of the oceans" providing a governance framework has not only been fleshed out by the PSSA concept, but has been disproportionately exceeded.

As regards the PSSA Guidelines' broader protective approach, it must be stressed that APMs other than those addressing pollution of the marine environment cannot take effect in the EEZ through reference to Article 211(5), because its context confines coastal states to the adoption of "laws and regulations for the prevention, reduction and control of pollution from vessels." It does not allow for coastal states to transpose any (compulsory) APMs that are concerned with other forms of vessel-source impairment of the marine environment. Although the PSSA concept aims to reconcile UNCLOS' zonal approach with ecological needs not confined to arbitrary marine boundaries, the implementation of APMs must still take account of legal requirements in the various zones. The limitation of UNCLOS to special areas designated in the EEZ does not prohibit the designation of protected areas in other maritime zones, as long as protective measures do not trifle with the regulatory regime applied there.

Another issue that needs to be considered is the concept's origin. Although adopted a year before the CBD, the guidelines respond to the same concern, loss of biodiversity, which became increasingly serious in the late 1980s.[109] It is not

[108] A similar conclusion was drawn by the First International Meeting of Legal Experts on PSSAs (Hull/UK, 1992): "[…] UNCLOS Articles 211.5 and 211.6 provide a good basis for further development of PSA as a concept of international law and for the development of 'special mandatory' measures for PSAs." See Kristina M. Gjerde and David Ong, "Protection of Particularly Sensitive Sea Areas Under International Environmental Law", 26 *MPB* (1993), pp. 9-13, at 11.

[109] Cf. Louise de la Fayette, *supra*, note 67, p. 186.

based on Article 211(6), but on the recognition that an instrument was needed for the proper implementation of broader obligations contained in Articles 192 and 194(5). At the time the PSSA concept was developed, discussions on the spatial protection of vulnerable marine areas had substantially progressed.[110] It became apparent that the special-areas concept of Article 211(6) was ineffective in terms of its restriction to the EEZ and to pollution – and did not adequately meet the needs of the international community to protect marine areas under their jurisdiction. Because an amendment or a revision of UNCLOS was an impossible notion[111], the international community had to rely on the PSSA Guidelines. While the Guidelines have the disadvantage of being limited to what the rules of reference allow for, they entail some improvement in comparison with special areas according to Article 211(6) of UNCLOS.

3. Preliminary Remarks

From the observations made in this section, the fact should be highlighted that the PSSA Guidelines have been adopted by the IMO Assembly as a resolution in furtherance of the organisation's purpose to facilitate the adoption of rules aimed at preventing vessel-source pollution of the marine environment. As rules primarily aimed at governing procedural issues, they are part of the internal law of IMO. For the protection of designated areas, they envisage the adoption of APMs. According to the PSSA Guidelines, APMs may also be adopted if they do not have an express treaty-law basis. These APMs are nevertheless binding, insofar as they represent generally accepted rules and standards, a term used by certain UNCLOS rules of reference to incorporate in its regulatory regime regulations developed outside the convention. As the scope of these rules of reference differs, this categorisation is purely related to the APMs' legal quality. It does not imply any conclusion with respect to implications for the balance of coastal-state jurisdiction over foreign vessels. This issue remains to be explored in the next section.

[110] These developments are reflected in the longish text on MPA concepts that precedes the first PSSA Guidelines. See Res. A.720(17), *Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas*, adopted on 6 November 1991, para. 1.1 et seqq.

[111] UNCLOS had only come into force in 1994. Besides, according to Art. 312 of UNCLOS, a formal revision process could not have been instigated before the expiry of a period of 10 years after entry into force. See further, David Freestone and Alex G. Oude Elferink, "Flexibility and Innovation in the Law of the Sea – Will the LOS Convention Amendment Procedures ever be used?", in A.G. Oude Elferink (ed.), *Stability and Change in the Law of the Sea: The Role of the LOS Convention* (Leiden Boston: Martinus Nijhoff Publishers 2005), pp. 169-221, at 173 et seqq.; and, *infra*, Sec. II.2.a) of Chapter 11.

II. Implications for the Balance between Environment Protection and Freedom of Navigation

After having investigated the legal character of PSSAs and their APMs, I shall now examine the consequences for the delicate balance between coastal states' jurisdiction on foreign vessels in environmental matters and the freedom of navigation. I will do so by reference to the different maritime zones – with respect to both prescriptive and enforcement jurisdiction. The PSSA concept's impact on international law may have immediate effects within the UNCLOS framework, but may, however, also have long-term implications. Hence, I shall also investigate to what extent the guidelines are reflective of the emergence of new customary international law relating to the prevention of vessel-source pollution of the marine environment.

It is obvious from what was noted earlier in this treatise that the high-seas governance regime is characterised by the absence of coastal states as regulating and enforcing entities. The following account will therefore omit references to areas beyond national jurisdiction. Instead, I shall address the issue in a separate section of this chapter, III., and more broadly examine whether and how the PSSA concept can be implemented on the high seas and how the protection of designated areas may be ensured in this particular part of the oceans.

1. Modification of the Status Quo – Legislation and Enforcement

UNCLOS sets forth the prevailing framework for coastal states' protective measures against pollution of the marine environment by foreign vessels. Its specific prerequisites, limits and legal consequences depend on the maritime zone in which the vessel navigates.[112] Bearing this in mind, it should be asked to what extent the PSSA Guidelines contribute to a modification of UNCLOS' coastal-state jurisdiction regime. Could APMs contribute to an expansion of coastal-state competences? As has become apparent, the *status quo* in the law of the sea is difficult to depict. Several framework provisions allow for the dynamic integration of IMO instruments into the UNCLOS governance mechanisms, which can thus be particularised according to the needs of the international community.

Several authors, mostly in a rather broad manner, have suggested that the PSSA concept entails the possibility "to establish higher standards rather than to apply the ones which are already available in an existing instrument,"[113] offering "the tantalising option of stretching the strict limitations imposed by the LOS Convention on coastal states to protect discrete areas of their marine environment from the impact of foreign vessels,"[114] because apparently "[s]tates are willing to give the IMO the power to authorise […] special anti-pollution measures in their

[112] See, *supra*, Sec. III.2. of Chapter 4.
[113] Nihan Ünlü, *supra*, note 104, p. 168.
[114] Kristina M. Gjerde and J. Sian H. Pullen, "Cuba's Sabana-Camagüey Archipelago: The Second Internationally Recognised PSSA", 13 *IJMCL* (1998), pp. 246-262, at 247 et seq.

coastal zones."[115] In the following section, I wish to consider whether these expectations can be met. Because the balance between environmental protection rights and navigational freedom is struck differently in each of the maritime zones that UNCLOS recognises, I will examine the impact of the PSSA concept separately for each of them.

To recall conclusions developed in Section I.1 of Chapter 8, it may be noted that specific measures for APMs may be chosen from Articles 21 and 211(6) to allow proposing coastal states to adapt adequately to the needs of the area. Nevertheless, chosen measures must not derogate from the basic UNCLOS system. In the light of the conclusions drawn in Section I.2 above, it must be examined whether and to what degree APMs can bring about an expansion of coastal states' rights by utilising the rules of reference without violating UNCLOS. In so doing, special attention must be paid to the inherent limitations of the respective rules of reference.

a) Territorial Sea

aa) Legislative Jurisdiction

With respect to prescriptive jurisdiction of coastal states in the territorial sea, Article 211(4) of UNCLOS stipulates that laws concerning the prevention, reduction and control of marine pollution from foreign vessels must not hamper the right of innocent passage as shaped by Articles 17 to 26. To that end, Article 21(1) lit. (a) provides for the coastal state to adopt laws relating to the safety of navigation and the regulation of maritime traffic, while lit. (f) relates to "the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof." Where laws adopted in accordance with these rules constitute CDEM standards, they need to give effect to generally accepted international rules or standards.[116] The coastal state is thus not competent to enact protective measures that provide for, e.g., certain mandatory construction requirements for vessels that have not been incorporated in an instrument that can be considered to be generally accepted. In addition, the state is given no possibility to submit to IMO for approval any specific measure it wants to implement.

The PSSA concept significantly modifies these rights, inasmuch as it allows for measures to be based on Article 211(6). With respect to vessel-source pollution, this provision allows for exceptional measures to be adopted even when there is no IMO instrument that expressly addresses this measure. It does not contradict international law if a measure is based, by virtue of the PSSA Guidelines, on Article 211(6) and applied in the territorial sea. As has been shown, *supra*, in Section I.1.b) of Chapter 8, the legal bases mentioned in Section (iii) of paragraph 7.5.3 of the PSSA Guidelines do not confine APMs to the respective maritime zone, either territorial sea or EEZ. This interpretation is in line with the holistic approach of the PSSA concept that seeks to decouple protection of the marine environment from the rather artificial zonal approach deployed by UNCLOS.

[115] Angelo Merialdi, *supra*, note 67, p. 39.
[116] Art. 21(2) of UNCLOS.

The resolution by which an APM, based on paragraph 7.5.3.(iii) of the Guidelines in conjunction with Article 211(6), is approved, would conform to "generally accepted international rules and standards" if adopted unanimously or with a great majority. Eventually, if it addresses CDEM standards, coastal states can implement the APM content in their territorial seas by recourse to Article 21(2).

bb) Enforcement Jurisdiction

Turning to enforcement jurisdiction for territorial sea regulations, it will be seen whether the PSSA Guidelines also have an expanding impact on UNCLOS' provisions. The term "enforcement", not defined in UNCLOS or any other convention, is usually taken to encompass the means deployed by a (coastal) state to ensure the effective application of its laws and regulations.[117] To that end, it may adopt measures to induce compliance or sanction non-compliance by way of administrative action or judicial proceedings.[118] The key UNCLOS provision dealing with enforcement rights against vessel-source pollution in the territorial sea is Article 220(2). States' authorities "may undertake physical inspection of the vessel relating to the violation and may, where the evidence so warrants, institute proceedings, including detention of the vessel […]" if the vessel has violated coastal states' rules "adopted in accordance with this Convention […] for the prevention, reduction and control of pollution from vessels." Because regulations giving effect to APMs of a PSSA are "adopted in accordance with this Convention," coastal state are allowed, subject to safeguards in Article 223 et seqq., to enforce them against foreign vessels.[119]

Practical implications can be duly illustrated by recourse to the intended Ecuadorian enforcement practice concerning the mandatory ATBA of the Galapagos PSSA. The IMO Assembly approved this routeing measures after consideration in MSC and NAV. In its submission to NAV, Ecuador explained how it would enforce the ATBA rules.[120] In particular, it was stated that "[s]hips in transit through the PSSA that infringe the procedures will be subject to the relevant laws and regulations, and may be detained at an island port pending payment of a bond set by the Maritime Authority in accordance with the relevant sanctions."[121] Furthermore, "[a]ny ship that causes pollution through the illegal discharge of oil

---

[117] Gerhard Hafner, "Meeresumwelt, Meeresforschung und Technologietransfer", in W. Graf Vitzthum (ed.), *Handbuch des Seerechts* (München: C.H.Beck 2006), pp. 347-460, para. 156 et seq.

[118] DOALOS, *Enforcement by Coastal States – Legislative History of Article 220 of the United Nations Convention on the Law of the Sea* (New York: United Nations 2005), p. 2.

[119] Examples of actions aimed at enforcing APMs are to be found in MEPC 46/6/1/Add. 1, *Additional Protection for Particularly Sensitive Sea Areas*, 14 February 2001, Annex, para. 3.6 et seqq.

[120] NAV 51/3/4, *Proposal by Ecuador to designate the Galapagos Archipelago as a Particularly Sensitive Sea Area (PSSA)*, 4 March 2005, Annex 11.

[121] *Ibid.*, para. 1.

or any other contaminant into the sea will be escorted to port and detained pending application of the relevant sanctions in accordance with the appropriate national legislation, and will not be allowed to leave until the bond has been paid."[122]

Although these phrases were neither considered by the sub-committee nor approved, they were not objected to and may thus be reflective of what states consider to be lawful conduct with respect to the enforcement of APMs. As for the former provision, it is in line with Article 220(2) of UNCLOS, provided that "procedure" is intended to include the regulations concerning the ATBA. The same is true for the latter, even though it addresses pollution, whereas the ATBA rules are concerned with navigation rather than discharges.[123] Ecuador apparently did not consider it necessary to contemplate the exertion of milder measures. Since Article 220(2) provides for the detention of a vessel only "where the evidence so warrants," a detention may not always conform to this requirement.

b) Exclusive Economic Zone

In the EEZ, coastal states, according to Article 211(5) of UNCLOS, may "adopt laws and regulations for the prevention, reduction and control of pollution from vessels conforming to and giving effect to generally accepted international rules and standards […]." Accordingly, coastal states can implement APMs in their EEZ, because they constitute generally accepted international rules and standards. To that end, however, a minor drawback should not be forgotten. APMs can be based on Article 21 to include instruments contributing to "the preservation of the marine environment of the coastal state." In contrast, the scope of application of Article 211(5) is limited to the adoption of laws and regulations concerning vessel-source pollution – other forms of vessel-related impacts on the marine environment are not within the provision's scope of application. If APMs go beyond pollution prevention, they cannot be implemented as mandatory requirements for foreign vessels unless they have a treaty-law basis. However, since most forms of non-pollution environmental degradation, e.g. grounding, occur in shallow waters and reefs that are often located within the territorial sea, this difference arguably does not amount to a substantial weakness.

As I have touched upon earlier, the application of the PSSA concept, if applied in a manner that follows the interpretation advanced here, leaves little room for Article 211(6). First, the protective measures of PSSAs can already be implemented by way of Article 211(5). Secondly, the protective level of APMs arguably exceeds that of Article 211(6) and PSSAs, in addition, have fewer prerequisites that must be met.

With respect to the enforcement of APMs in the EEZ, several paragraphs of Article 220 are relevant, namely paragraphs 3, 5, and 6. There is a major difference between the enforcement regimes applicable in the territorial sea and in the EEZ. Whereas coastal states are allowed to enforce all of their laws regardless

[122] *Ibid.*, para. 3.

[123] It can be assumed that an area in which certain types of ships may not navigate is *a fortiori* also protected from vessel-source discharges.

of the result of the breach that has occurred, the enforcement of EEZ laws faces two substantial hurdles. Generally, only those laws that conform and give effect to "applicable international rules and standards" can be enforced. In addition, the intensity of the enforcement measures is linked to the environmental impact of the vessel's conduct. As regards the latter, I have already set out the details of Article 220 in Chapter 4.[124] More importance must be attached to the former issue, which may influence the enforcement of APMs in PSSAs. Only if protective measures are based on applicable international rules and standards can compliance be enforced and breaches prosecuted. "Applicable" refers to treaty law and customary international law; it does not encompass soft-law instruments.[125] Hence, there seems to be an apparent gap between legislative and enforcement jurisdiction in the EEZ. However, as I have said earlier[126], generally accepted international rules and standards are incorporated into the UNCLOS regime, they are always "applicable" between parties to UNCLOS. Consequently, coastal states are allowed to enforce a violation of APMs they have transposed into their domestic legislation against vessels flying the flag of an UNCLOS party. As to the means available, they are confined to graded limitations set by Article 220(3), (5), and (6). To that end, the PSSA status of an area does not have an immediate impact on coastal states' enforcement competences.

However, it should be noted that mandatory SRSs, deployed in many PSSAs, already exceed the powers of coastal states under Article 220(3) of UNCLOS, in that they require ships to give certain information even without "clear grounds for believing that a vessel […] has […] committed a violation of applicable [environment protection rules]."[127] With respect to the application of Article 220 by coastal states, it may thus be reasonably argued that they should always be given powers granted under paragraphs 5 and 6.[128]

c) Straits and Archipelagic Waters

Other critical maritime zones that have already played a crucial role in debates revolving around PSSA designations are straits used for international navigation and archipelagic waters. UNCLOS deploys unique regulatory approaches for both zones, which are characterised by transit passage and ASL passage respectively, as has been explained in some detail in Chapter 4.[129]

---

[124] See, *supra*, Sec. III.2.b) of Chapter 4.
[125] Cf., *supra*, Sec. III.4. of Chapter 4.
[126] *Ibid*.
[127] Henning Schult, *supra*, note 92, p. 191.
[128] Note that, in addition, some terms used by Art. 220(5) and (6) may be interpreted differently in the light of a PSSA designation; see, *infra*, Sec. II.2.b) of this chapter.
[129] Sec. III.2.d) and e) of Chapter 4. With respect to the straits regime, UNCLOS builds on long-standing customary international law.

What needs to be explored in this section is the legal yardstick for APMs to apply within PSSAs covering international straits or archipelagic waters.[130] There is an obvious difference between strait states' legislative competencies to give effect to "applicable international regulations regarding the discharge of oil, oily wastes and other noxious substances," as is codified in Article 42(1) lit. (b) of UNCLOS, and certain mandatory APMs that employ a considerably wider approach. The critical question is whether these APMs comply with UNCLOS' requirements for international straits. As I have explained earlier, in Section I.1.b) of Chapter 8, APMs that rely on non-binding IMO instruments – Article 21(2) of UNCLOS or Article 211(6) – must not contradict the specific design of the balance between coastal states' rights and navigational rights in the maritime area where the PSSA is located. The fact that Article 42(1) lit. (b) incorporates "applicable" instead of "generally accepted" international rules and standards does not bring any APM outside its scope. However, because the discharge of oil, oily wastes and other noxious substances is largely governed by MARPOL, there is little room for other measures to become applicable in international straits as a mandatory APM. Although coastal states therefore are limited in adopting mandatory laws and regulations applicable to foreign vessels in straits under their jurisdiction, they are free to adopt these measures on a voluntary basis. This approach duly reflects the importance that the international community has attached to the freedom of navigation in international straits ever since. In the light of these observations, it must be noted that APMs in international straits can only be introduced if they relate to the discharge of "oil, oily wastes and other noxious substances." This view is corroborated by the outcome of disputes triggered by an APM for the Torres Strait PSSA. Pilotage as a protective means chosen by Australia and Papua New Guinea was available as such, but only on a voluntary basis. A compulsory design would have contradicted transit passage rights, as it is an instrument which coastal states cannot adopt by reference to Article 42(1) lit. (b) of UNCLOS.[131]

It must be noted, however, that where PSSAs partly or wholly cover an international strait, a compulsory measure which may not be introduced in international straits (such as pilotage in the Torres Strait PSSA) could be implemented by it requiring all ships transiting the strait, for the purpose of entering or leaving a port of either state, to comply with the respective regulation.[132] This approach

[130] Hereafter, I shall omit references to archipelagic seas, since – by virtue of Art. 54 of UNCLOS – the key provisions of the straits regime apply *mutatis mutandis* to passage through archipelagic sea lanes.

[131] Australia and Papua New Guinea, which took the opposite view, argued that compulsory pilotage could be based on Art. 211(6) and did not violate the transit passage rules, because the APM would have been necessary to complement traffic separation schemes prescribed in conformity with Art. 41; cf. NAV 50/3, *Torres Strait PSSA Associated Protective Measure – Compulsory Pilotage*, 22 March 2004, para. 5.10 et seq. I would contend that this interpretation stretches the wording of Art. 41 beyond any reasonable limit.

[132] Likewise Julian Roberts, *supra*, note 95, p. 105.

conforms to port-state jurisdiction as fleshed out by UNCLOS.[133] Otherwise, compliance with mandatory regulations is purely based on consent within the international community but is not a consequence of current international law.[134]

In Chapter 4, I alluded to Article 43 of UNCLOS, which requires user and strait states to co-operate by agreement "in the establishment and maintenance in a strait of necessary navigational and safety aids or other improvements in aid of international navigation; and for the prevention, reduction and control of pollution of ships." Apparently, this provision promotes the progressive development of the UNCLOS' straits regime through multilateral action within and outside IMO. Whether the purpose of Article 43 could be achieved by means of specifically designed PSSAs is doubtful. The use of the term "agreement" strongly suggests that it is not by soft-law mechanisms that the straits regime could be altered. In addition, "agreement" also indicates that an arrangement must be negotiated of which all interested parties expressly approve. Hence, acceptance with a great majority is not sufficient for creating duties for all user states, i.e. flag states.

With respect to enforcement jurisdiction, Article 233 clarifies that strait states, in enforcing measures they are allowed to adopt according to Article 42(1) lit. (b) of UNCLOS, may only take action if a ship causes or threatens major damage to the marine environment of the strait; warships are exempted from the scope of this provision. These competences are not altered by the PSSA concept. [135]

It should finally be noted that, by virtue of Article 39(2) of UNCLOS, ships in transit passage shall comply with "generally accepted international rules and standards, procedures and practices" with respect to both safety at sea and the prevention, reduction and control of vessel-source pollution. As far as anti-pollution measures are concerned, APMs are undoubtedly included, because the provision lacks any qualifier similar to the one in Article 42(1) lit. (b).[136] Even though strait states are not allowed to transpose into domestic law some APMs and are thus hindered from enforcing them, vessels are legally obliged to adhere to these measures.[137] This may be the reason why many maritime states within IMO are reluctant to approve any protective measures for PSSAs in straits at all.

---

[133] As Louise de la Fayette, "Access to Ports in International Law", 11 *IJMCL* (1996), pp. 1-22, at 4, rightly notes that "there is no right of entry into ports". Cf., *supra*, Sec. III.2.f) of Chapter 4.

[134] Kristina M. Gjerde and J. Sian H. Pullen, *supra*, note 114, p. 247. Similar Julian Roberts, *supra*, note 95, p. 104 et seq. Whether the PSSA concept could be construed as being a forerunner of emerging customary law with respect to coastal states' jurisdiction in sensitive marine areas under their jurisdiction is addressed, *infra*, in Sec. II.3. of this chapter.

[135] However, the PSSA status of a strait may contribute to an altered interpretation of the term "major damage"; see, *infra*, Sec. II.2.b) of this chapter.

[136] Even those who argue that generally accepted international rules and standards do not encompass IMO resolutions would not contest this conclusion. Cf., *supra*, Sec. III.4. of Chapter 4.

[137] In the case of a violation, enforcement as usual rests with the flag state.

2. Summarising Remarks

As has become apparent throughout this chapter, the PSSA Guidelines' interaction with UNCLOS and, in particular, its rules of reference is crucial for assessing the concept's benefits for marine environment protection. In this section, I would like to summarise the main findings above and examine whether the PSSA concept is a valuable asset for coastal states. Furthermore, I shall attempt to explore whether PSSA status additionally strengthens coastal states' protection efforts by influencing the interpretation of some indefinite terms used in UNCLOS.

a) PSSA Status: Additional Rights or Added Value?

To begin with, it should be recalled that, for the identification of APMs, proposing states are allowed to rely on multilateral treaties and IMO instruments, as well as on Articles 21 and 211(6) of UNCLOS. The excessive designation and use of APMs is prohibited by the PSSA Guidelines, insofar as they clearly state that the implementation of APMs must not amount to derogation from the basic UNCLOS framework. While this stipulation seems to confine coastal states to enacting measures that would have been available even without PSSA status, it must be considered that some UNCLOS provisions have a certain dynamic character. In this context, the legal status of APMs is of vital importance. If they do not have a legal basis in an existing multilateral treaty, they are approved by an IMO resolution adopted by the Assembly or one of IMO's committees. As far as this is done unanimously or with a great majority of votes, the respective APMs are encompassed by the notion of "generally accepted international rules and standards", on which UNCLOS relies to incorporate regulations agreed to by the international community. The same applies to individual APMs adopted by an IMO organ. When designing their laws for the territorial sea and the EEZ, coastal states may thus rely on APMs as a maximum level of interference with the navigational rights of foreign vessels. Deploying the PSSA concept, therefore, does not rescind the balance of coastal-state jurisdiction over foreign vessels and freedom of navigation, but pushes coastal-state jurisdiction to the furthest extent possible within the current UNCLOS framework. Hence, the PSSA concept may provide for protective measures for certain marine areas that are otherwise not available.[138] However, as has been seen above, the progressive impact of PSSA status is confined to the territorial sea and the EEZ. The impact on jurisdiction in international straits and archipelagic waters is limited, since strait states must not legislate on matters other than discharge restrictions on certain substances.

The general views expressed here are shared by some scholars, although no one deploys lengthy arguments in support of their contention[139] or specifies implica-

[138] Note that in Chapter 7, several additional "protective effects" of PSSAs have been identified, such as raising awareness of the need to navigate cautiously and increasing political pressure on governments to develop and propose further APMs for the area.

[139] See Kristina M. Gjerde, "Protecting Particularly Sensitive Sea Areas From Shipping: A Review of IMO's New PSSA Guidelines", in H. Thiel and J.A. Koslow (eds.), *Managing Risks to Biodiversity and the Environment on the High Sea, Including Tools*

tions for different maritime zones. In contrast, other scholars have negated any legal effect of the UNCLOS system and have merely attached added intrinsic value to a PSSA designation, limiting its character to a purely awareness-raising instrument. For *Lagoni*, PSSAs are a management tool which is used to house all sorts of existing protective measures under a single roof, supporting their efficient application;[140] *Warren* and *Wallace* consider a PSSA to be a mere symbol for the environmental sensitivity of an area;[141] and *Molenaar* contends that "coastal States gain little in acquiring a PSSA identification, except perhaps for some ill-defined recognition of the area's special character."[142] *Roberts*, while stating that "[t]he designation of a PSSA may also be considered to be giving effect to obligations under Article 211(1) of the LOSC, which requires states acting through the competent international organisation to establish rules and standards to prevent pollution from vessels and to adopt routeing measures to minimise the risk of accidents resulting in pollution,"[143] is reluctant to acknowledge that the PSSA concept has more than intrinsic value, because "[t]he limits of what may be adopted by the IMO as an APM are not clearly defined in the PSSA Guidelines."[144] I would like to maintain that, in the light of the arguments set out in this treatise, the argument that PSSAs possess only intrinsic value is not compelling. Coastal states, by having parts of the waters under their jurisdiction designated as a PSSA, are allowed to implement more stringent measures – provided that proposals are approved by IMO – than in waters without PSSA status.

Nevertheless, some coastal states have refrained from having parts of their territorial sea protected by PSSA status. Instead, they have chosen only to apply for a single routeing measure.[145] New Zealand's approach, in particular, spurred questions as to the benefits of PSSA status for vulnerable marine ecosystems, given that the GPSR deploy almost the same language as the PSSA criteria.[146] The case of the Poor Knights Islands shows that PSSA status is most adequately

such as Marine Protected Areas – Scientific Requirements and Legal Aspects (Bonn-Bad Godesberg: BfN-Skripten 2001), pp. 123-131, at 126; Angelo Merialdi, *supra*, note 67, p. 37; Nihan Ünlü, *supra*, note 104, p. 168.

[140] Rainer Lagoni, *supra*, note 67, pp. 121-133, at 126.

[141] Lynda M. Warren and Mark W. Wallace, "The Donaldson Inquiry and its Relevance to Particularly Sensitive Sea Areas", 9 *IJMCL* (1994), pp. 523-534, at 528 et seq.

[142] Erik Jaap Molenaar, *supra*, note 95, p. 443.

[143] Julian Roberts, *supra*, note 95, p. 94 et seq.

[144] *Ibid*., p. 97. In fact, he does not attempt to explore these limits, apart from stating that conformity with UNCLOS and non-interference with the freedom of navigation must be ensured. Identical reasoning is applied in Julian Roberts et al, "The Western European PSSA Proposal: a 'politically sensitive sea area'", 29 *Marine Policy* (2005), pp. 431-440, at 434.

[145] New Zealand applied for an ATBA around the Poor Knight Islands, as well as for a precautionary area off the West coast of its North Island; see Sec. II.1.a) of Chapter 8 and Sec. III.3. of Chapter 7, respectively. The US deployed two SRSs to protect the North Atlantic Right Whale against ship strikes in areas off the northeast and southeast coast without having it proposed as a PSSA; cf. Sec. II.1.b) of Chapter 8.

[146] Julian Roberts, "Protecting sensitive marine environments: the role and application of ships' routeing measures", 20 *IJMCL* (2005), pp. 135-159, at 151 et seq.

sought for areas that need multiple protective measures to be put in place. Where states only seek implementation of one specific instrument, they arguably need not go through the sometimes longish designation procedure. However, a PSSA designation keeps open the door for further measures and may thus still be preferred by coastal states to allow for flexibility with respect to future developments in and around the vulnerable area.

Another observation made in this section is that PSSA status tends to result in aligning the protective regimes of the EEZ and the territorial sea to facilitate uniform application of protective measures. The PSSA mechanism thereby promotes the implementation of a protective approach that is a more ecosystem-based approach, enabling the determination of the type of APM with a view to the specific needs of the area rather than the allocation of jurisdiction.[147] However, UNCLOS does not permit the inter-zonal approach of the PSSA concept to encompass often fragile straits, if used for international navigation pursuant to Part III of UNCLOS, and archipelagic waters. Strait states and archipelagic states have to adhere to the rather rigid limitations set by UNCLOS for these particular zones.

b) Modified Interpretation of Indeterminate Legal Terms

As has become apparent from the observations made so far, the balance between coastal states' jurisdiction and foreign vessels' enjoyment of navigational rights is only slightly altered by the application of the PSSA concept if, and to the extent to which, coastal states can make use of UNCLOS' rules of reference. The overall framework is left unaltered. However, an additional argument could possibly be produced to further strengthen coastal states' enforcement competences while not changing the basics of the UNCLOS system. As *Schult* has indicated, without going into details, "the PSSA status of an area can become important for the interpretation of certain UNCLOS rules. A state may argue, for instance, that even small discharges in a PSSA render the passage of a vessel non-innocent, because they constitute an act of 'wilful and serious pollution' in accordance with article 19(2) lit. (h). Hence, PSSA status increases the scope of application of existing environment protection measures."[148] A similar line of reasoning could be applied to the interpretation of indeterminate legal terms relevant for enforcement juris-

[147] Similarly Henning Schult, *supra*, note 92, p. 213. As has been rightly mentioned, "[t]raditional jurisdictional zones […] were designed to give interested states control over what was deemed a suitable section of the ocean, not to ensure the sustainable use of ecosystems. The result is a mismatch of jurisdictional zones and ecosystems." See Elizabeth Kirk, "Maritime Zones and the Ecosystem Approach: A Mismatch", 8 *RECIEL* (1999), pp. 67-72, at 69.

[148] Henning Schult, *supra*, note 92, p. 214: ("Zudem kann die PSSA-Eigenschaft eines Gebietes Bedeutung bei der Auslegung von Vorschriften des [SRÜ] gewinnen. Ein Staat könnte beispielsweise argumentieren, dass selbst geringe Einleitungen von Schiffen in einer PSSA die Durchfahrt dieser Schiffe unfriedlich machen, weil sie eine vorsätzliche schwere Verschmutzung im Sinne von Art. 19(2) (h) SRÜ darstellen. PSSAs vergrößern folglich die Anwendungsmöglichkeiten existenter Umweltschutzmaßnahmen. ") [own translation].

diction in the EEZ, i.e. paragraphs 5 and 6 of Article 220.[149] Whether a vessel's discharge amounts to a "substantial discharge causing or threatening significant pollution of the marine environment" or even "a discharge causing major damage or threat of major damage to the coastline or related interests of the coastal State, or to any resources of its territorial sea or [EEZ]" is a question of vital concern for the coastal state's enforcement authorities. The quantity and the result of a discharge is intrinsically tied to the extent of coastal states' enforcement rights over foreign vessels.

These observations merit a closer look at how these UNCLOS terms are usually defined. The *Virginia Commentary* notes: "The expression 'major damage to the coastline or related interests of the coastal State' is not explained, but the legislative history taken in its historical context, following the Amoco Cadiz and other similar incidents, illustrates the kind of problem addressed by this provision. […] Obviously this is first a matter for the subjective interpretation of the coastal State, but if a dispute arises it would come within the scope of Part XI [on settlement of disputes]."[150] This statement is a reasonable appraisal, given that neither fixed requirements nor guidance as to what parameters to apply for an interpretation exist.[151] It is thus not far-fetched to contend that the aforementioned indeterminate legal terms must be interpreted on a case-by-case basis, taking account of the prevailing characteristics of the area. One of these characteristics is international recognition of an area's sensitivity by conferral of PSSA status: enforcement competences of coastal states against vessel-source pollution must be extended where the international community explicitly recognises a particular vulnerability to exactly these threats. This approach duly conforms to the requirements of Article 31(1) of the Vienna Convention on the Law of Treaties[152] to interpret a legal term "in light of its object and content." Since environmental terms, such as "significant pollution" or "major damage", are inherently vague, their concrete meaning must be determined by recourse to the objective of Part XII to "protect and preserve the

[149] A modified interpretation of "major damage" for areas identified pursuant to Art. 211(6) of UNCLOS, without reference to PSSAs, is suggested by Lindy S. Johnson, *Coastal-State Regulation of International Shipping* (Dobbs Ferry: Oceana Publications 2004), p. 121, in note 438.

[150] Myron H. Nordquist, Satya N. Nandan and Shabtai Rosenne, *United Nations Convention on the Law of the Sea 1982, A Commentary,* Vol. IV (Dordrecht: Martinus Nijhoff Publishers 1991), para. 220.11(j).

[151] Similarly Robin Churchill and Vaughan Lowe, *The Law of the Sea*, Third Ed. (Manchester: Manchester University Press 1999), p. 349, take the view that the power of interpretation lies with the coastal states leading them to "assume that any significant discharge will fall into [art. 220(6)], thus endowing themselves with greater enforcement competence." Jon M. Van Dyke, "The Disappearing Right to Navigational Freedom in the Exclusive Economic Zone" 29 *Marine Policy* (2005), pp. 107-121, at 109, observed that "state practice appears to have expanded this right [of enforcement in article 220(3)-(6)] dramatically during the past year after the disastrous breakup of the oil tanker *Prestige*".

[152] Convention on the Law of Treaties, adopted on 22 May 1969, in force as from 27 January 1980, 8 *ILM* (1969) 679.

marine environment."[153] The same is true for the interpretation of "wilful and serious pollution" as used in Article 19(2) lit. (h), as well as for the interpretation of "major damage" contained in Article 233 on strait states' enforcement jurisdiction. Therefore, a strong argument could be produced that, in the light of PSSA status, indefinite terms describing the state of the marine environment ought to be interpreted so as to allow coastal states to act decisively in pollution incidents.[154] *Schult's* suggestion should be affirmed whole-heartedly.

If certain environment-related terms in UNCLOS are to be interpreted with a view to the characteristics of the area in question, the same might be said about the interpretation of environment-related requirements for, e.g., routeing measures, such as those contained in the General Provisions on Ship's Routeing.[155] Evidence of practice within IMO is scarce. Recently, NAV 51 refrained from approving two mandatory ATBAs in the Baltic Sea Area PSSA but did not give any reason for its conduct, apart from stating that "the proposal did not justify the establishment of such areas;"[156] instead, the ATBAs were adopted as non-mandatory routeing measures.[157] Of course, the term "essential in the interest of […] protection of the marine environment" is not only more vague than the UNCLOS terms referred to above, but also does not relate to the status of the marine environment. Hence, a PSSA designation does not automatically render every proposal admissible. Whether or not a mandatory routeing measure is adopted for a PSSA is still largely left to the success or failure of diplomatic negotiations within IMO.

An example from German domestic law more closely resembles the UNCLOS provisions examined above. A few years ago, in the aftermath of the *Pallas* accident in the German bight, the Central Command for Maritime Emergencies Germany (CCME – *Deutsches Havariekommando*) was established.[158] It is a task force on stand-by 24 hours a day, designed to bypass the complex federal structures for rescue and emergency services at sea in the case of a shipping accident triggering the need to deploy one-stop urgent action. The relevant point of reference for an intervention is a "complex damage situation at sea" (*komplexe Schadenslage*), i.e. a danger of a serious threat to the environment, as required by paragraph 1(4) of HKV.[159] Since most German North Sea coastal areas are

[153] Art. 192 of UNCLOS.

[154] The same may arguably be said with respect to other regimes in international law, such as an inclusion of an area in the Ramsar List of Wetlands of International Importance.

[155] For instance, para. 6.17 of the GPSR stipulates that "[t]he extent of a mandatory routeing system should be limited to what is essential in the interest of safety of navigation and the *protection of the marine environment.*" (italic emphasis added)

[156] NAV 51/WP.2, *Report of the Working Group*, 8 June 2005, para. 8.11.

[157] See Sec. V.2. and V.3. of Chapter 8 for details.

[158] Gert-Jürgen Scholz, "Das Havariekommando – Probleme gelöst?", 140 *Hansa* (2003) No. 3, pp. 32-36; Boris Klodt, "Havariekommando – gemeinsame Einrichtung des Bundes und der Küstenländer", Vortrag über das Havariekommando im Rahmen der 16. Sitzung des Hafenrechtsausschusses, 13 Mai 2004. See further information available from <http://www.wsv.de/cis/main.htm>; (accessed on 30 September 2006).

[159] Bund/Küstenländer-Vereinbarung über die Errichtung des Havariekommandos (HKV), adopted on 23 December 2002, BAnz No. 16, 24 January 2003, pp. 1170-1171. The

covered by the Wadden Sea PSSA and, indeed, the whole German Baltic Sea is part of the Baltic Sea Area PSSA, it can be asked whether this status has an impact on the conduct of CCME. According to paragraph 9 of HKV, the head of CCME may deploy emergency services and resources to respond effectively to an accident. Along the lines of reasoning applied above, it may be argued that the CCME has to step in earlier if parts of a PSSA are under threat.[160] However, a striking difference is that the Wadden Sea, as well as parts of the Baltic Sea, are already protected by a plethora of domestic legal instruments. At least with respect to these areas, it is doubtful whether PSSA status additionally lowers the threshold above which action is necessary for averting damage to marine and coastal ecosystems. While the international recognition of an area's vulnerability, for instance, by bestowing PSSA status, has an impact on the interpretation of certain multilateral treaties, this does not automatically apply to domestic law in the same manner. Because PSSAs are very likely to have already been granted legal protection by the proposing state pursuant to its nature conservation laws, PSSA status is merely an add-on that may not yield significant further consequences with respect to the interpretation of indeterminate legal terms in domestic law.

To sum up, it can be noted that a PSSA designation does not only provide protection, inasmuch as it allows for APMs to be adopted by IMO and notifies mariners of the area's fragility. Even though UNCLOS, in its provisions on the enforcement of coastal state environmental legislation, does not expressly refer to the ecological state of an area, a PSSA designation is very likely also to strengthen coastal states' competences with respect to interference with ships on voyage through the territorial sea, as well as the enforcement of APMs (and, indeed, other environmental protection regulations enacted in conformity with international law) against foreign vessels in the EEZ.

3. Long-term Implications: Contribution to Customary International Law?

While the previous section dealt with the PSSA concept's immediate effects on the jurisdiction of coastal states over foreign vessels, PSSAs may also have implications for the development of international law in the long run. *Gjerde* and *Freestone* recognised that "the PSSA concept offers the opportunity to enable the development of common jurisdictional and enforcement regimes for environ-

German text reads: "Eine komplexe Schadenslage im Sinne dieser Vereinbarung liegt vor, wenn [...] die Umwelt [...] gefährdet [ist] oder eine Störung bereits eingetreten ist und zur Beseitigung dieser Gefahrenlage die Mittel und Kräfte des täglichen Dienstes nicht ausreichen oder eine einheitliche Führung mehrerer Aufgabenträger erforderlich ist." By virtue of para. 9 of HKV, the director of CCME decides personally whether complex damage is impending.

[160] This argument is maintained by WWF Germany; e-mail by Dr. Hans-Ulrich Rösner, Head of Wadden Sea Project Office, 5 October 2006, on file with the author. WWF Germany also criticised the slow working pace of the CCME in the aftermath of the *Maritime Lady* accident in the mouth of the River Elbe; see *press release* of 10 December 2005, "Riskante Verzögerungen".

mentally significant marine areas."[161] More generally, some authors claim that PSSAs, amongst other developments within IMO, contribute to a significant change of perception of coastal-state jurisdiction over environmental matters.[162] These assumptions merit a closer look at the long-term implications of PSSAs. I shall examine whether the PSSA Guidelines could be said to make a progressive impact on customary international law governing coastal-state jurisdiction over foreign vessels aimed at protecting the marine environment.

To recollect the main features of customary international law, it is largely characterised by two elements: state practice and *opinio juris*.[163] The relationship of these elements was aptly summarised by the ICJ, which held that "not only must the acts [of a state] concerned amount to a settled practice, but they must also be such, or be carried out in such a way, as to be evidence of a belief that this practice is rendered obligatory by the existence of a rule of law requiring it."[164] States must feel that what they do is necessary for conforming to a legal obligation, whereas the frequency of carrying out these acts is not adequate evidence in itself.[165] The qualification of the PSSA Guidelines as soft law does not alter these findings: soft law can be a precursor to new customary international law; the existence of treaties is not a necessary element of customary law. While traditionally customary law was often thought to encompass only rules that have existed for a long time or even "from time immemorial,"[166] it is today generally accepted that a short period of time suffices to evidence the existence of a customary rule, provided that a widespread and representative conduct of states can be verified.[167]

Turning to the status of rules governing coastal-state jurisdiction over vessel-source pollution, state practice shows that provisions contained in Part XII of UNCLOS are widely believed to reflect customary international law, or at least those provisions that envisage broad obligations (Articles 192, 194(5), 197, and 206)[168] and those which set out the overall prescriptive and enforcement regime for coastal states (Articles 211 and 220) in the territorial sea and arguably in the

[161] Kristina M. Gjerde and David Freestone, "Particularly Sensitive Sea Areas – An Important Environmental Concept at a Turning-Point", 9 *IJMCL* (1994), pp. 431-468, at 432.

[162] Jon M. Van Dyke, *supra*, note 151, p. 109 et seq.; and Robert Nadelson, "After MOX: The Contemporary Shipment of Radioactive Substances in the Law of the Sea", 15 *IJMCL* (2000), pp. 193-244, at 237 et seqq.

[163] For an overview, see Rudolf Bernhardt, "Customary International Law", *EPIL* (1995), Vol. I, pp. 898-905.

[164] *North Sea Continental Shelf Cases (Federal Republic of Germany/Denmark; Federal Republic of Germany/The Netherlands)*, ICJ, 20 February 1969, *I.C.J. Reports* 1969, pp. 3-54, para. 77.

[165] *Ibid.*

[166] *Jurisdiction of the European Commission of the Danube between Galatz and Braila Advisory Opinion*, PCIJ, Dissenting Opinion of Judge Negulesco, *PCIJ*, Ser. B, No. 14 (1927), pp. 84-134, at 98.

[167] *North Sea Continental Shelf Cases, supra*, note 164, para. 73 et seq.

[168] These provisions represent marine specifications of broader environmental principles considered to be customary international law. Cf. Gerhard Hafner, *supra*, note 117, para. 33 et seqq.

EEZ.[169] That said, a different conclusion may be drawn from an examination of provisions concerning the protection of specific vulnerable areas. Whether the only UNCLOS rule addressing specially protected areas, Article 211(6), can be considered to have evolved into customary international law is highly doubtful, because – although no state has so far expressly objected to its content – states have not yet utilised its potential.[170] In addition, similar provisions for the territorial sea, international straits or archipelagic waters do not exist. Yet customary international law need not have a precursor in a treaty instrument. It must therefore be asked if sufficient state practice can be identified with respect to the protection of certain marine areas against threats posed by shipping. In fact, coastal states have developed a variety of marine protected area regimes. An analysis of regional treaties indicates the same inference, as the account in Chapter 5 has shown. However, coastal states appear to take careful account of the general governance regime set by UNCLOS and, indeed, customary international law. They do not seem to expand their rights in order to enact a common jurisdictional and enforcement regime. Likewise, as has been shown above in Chapters 5 and 9, regional MPA regimes do not infringe upon the freedom of navigation for the purpose of protecting vulnerable marine areas.

In my opinion, the PSSA concept should not be considered as signifying the emergence of specific customary international law relating to the protection of vulnerable marine ecosystems. While it is partly innovative in aligning the protective regimes of the territorial sea and the EEZ, it does not bring about radical changes. It merely uses UNCLOS dynamic rules of reference but does not go beyond what is admissible under the environment protection rules of Part XII. Moreover, virtually all APMs approved so far would have been available without PSSA status, since they were based on MARPOL, SOLAS or an instrument incorporated in one of these two regimes. Nevertheless, it has been maintained that PSSAs are in the centre of an evolutionary process, in which "navigational freedoms appear to be disappearing."[171] This assertion is largely based on the contentious proposal to designate the Western European Atlantic as a PSSA with an APM that would have, in effect, banned single-hull oil tankers from entering

[169] Erik Jaap Molenaar, *supra*, note 95, p. 241 (territorial sea) and p. 397 et seqq. (EEZ); Patricia Birnie and Alan E. Boyle, *International Law and the Environment*, Second Ed. (Oxford: OUP 2002), p. 353. Robin Churchill and Vaughan Lowe, *supra*, note 151, p. 352 et seq. are rather reluctant to attach customary status to rules relating to the EEZ. In contrast, recent ILA studies suggest that "states tend to rely on the new regime provided by the 1982 Convention with respect to [prescriptive] coastal state jurisdiction in the EEZ." Cf. Erik Franckx, "Exclusive Economic Zone, State Practice and the Protection of the Marine Environment", in *id.* and Ph.Gautier (eds.), *The Exclusive Economic Zone and the United Nations Convention on the Law of the Sea, 1982-2000: A Preliminary Assessment of State Practice* (Brussels: Bruylant 2003), pp. 11-30, at 30.

[170] Indeed, several states have ignored the restraints of Article 211(6) in their efforts to protect their EEZ: see Robin R. Churchill, "The Impact of State Practice on the Jurisdictional Framework contained in the LOS Convention", in A.G. Oude Elferink (ed.), *supra*, note 111, pp. 91-143, at 130.

[171] Jon M. Van Dyke, *supra*, note 151, p. 121.

the area. Whether proponents of the designation actually believed in the lawfulness of this APM and whether they believed that the freedom of navigation in the EEZ could really be impaired by this means is hard to verify. Because this specific APM aimed at preventing the passage of single-hull oil tankers was eventually withdrawn, not least because of the opposition it was facing, the practice of states within IMO does not provide evidence that PSSAs contribute to a departure from the traditional UNCLOS approach of coastal-state jurisdiction over vessel-source pollution that can (yet) be considered to signify the emergence of corresponding customary international law.

Given that the PSSA Guidelines allow for the application of an inter-zonal approach towards the protection of vulnerable marine ecosystems, it is probably indicative of the preparedness of the international community to go further down this road. Moreover, it may provide evidence of a general momentum that coastal states increasingly assert rights over the EEZ to foster the utilisation of natural resources (fisheries and seabed mining, as well as wind and tidal energy) and to protect their security interests. Eventually, states may be willing to agree to a treaty on MPAs in the future that disposes of arbitrary maritime zones. However, this is an issue to be addressed in the next chapter.

III. PSSAs on the High Seas – Competences and Responsibilities

While the PSSA concept, as has been noted above, can be applied to international straits and archipelagic waters, it does not create additional prescriptive jurisdiction for protective instruments in these particular zones. The issue of jurisdiction is even more challenging on the high seas. By its very nature, the status of the high seas implies the absence of coastal-state competences. Consequently, the observation that APMs represent generally accepted international rules and standards appears to have very little consequence, since UNCLOS rules of reference are largely limited to areas under national jurisdiction. Of course, flag states are obliged, by virtue of Article 211(2) of UNCLOS, to ensure that their laws on vessel-source pollution at least have the same effect as that of generally accepted international rules and standards – and most do not cease to apply on the high seas. Still, one of the most persistent problems of contemporary ocean governance is sub-standard shipping due to a lack of adequate flag-state resources to monitor and enforce their fleet's compliance. If flag states fail to live up to their obligations, no corrective seems to exist on the high seas, because other states do not have any regulatory power.

Bearing this in mind, I shall examine, as indicated above, whether and how the PSSA concept can be implemented on the high seas and how the protection of designated areas may be ensured in this particular part of the oceans. PSSAs are said to possess features that make their application possible even in areas beyond national jurisdiction[172], although challenges are obvious. First, in the absence of

[172] Robin Warner, "Marine Protected Areas Beyond National Jurisdiction – Existing Legal Principles and Future Legal Frameworks", in H. Thiel and J.A. Koslow (eds.), *supra*, note 139, pp. 149-168, at 167.

any coastal-state jurisdiction, the understanding of traditional freedom on the high seas makes it necessary to ascertain the extent to which protected areas may be designated and their protective measures enforced. Secondly, usually governments of coastal states are those able to apply for an area under the state's jurisdiction to be designated a PSSA. They are also responsible for enforcing and monitoring compliance with APMs once they are approved. Apparently, where no state other than the flag state has any jurisdiction, it is difficult to determine which state or entity could claim responsibility for applying for a PSSA, as well as for the subsequent monitoring and enforcement of APMs. In the following part, I shall highlight the legal framework for high seas marine protected areas (HSMPAs) and its possible development, as well as existing aerial regulations for environmental purposes. Subsequently, I shall consider how, in the light of these observations, the PSSA regime may be implemented on the high seas.

1. Preliminary Considerations and Political Initiatives

In Chapter 1, various features were identified that render it essential to protect the environment of the high seas. Areas beyond national jurisdiction accommodate, amongst others, a wealth of vulnerable deep-sea ecosystems, as well as habitats for marine mammals. A continuously growing intensity and range of human activities on the high seas triggered debates in diverse fora on possible ways of protecting the biodiversity of the high seas. The international community realised that urgent action is crucial to avoid a "tragedy of the commons" like in other environment-related instances.[173]

While Agenda 21, adopted at UNCED in 1992, merely included generally worded paragraphs on the protection of the vulnerable marine habitats[174], the Johannesburg Plan of Implementation (JPOI), adopted in 2002 at the World Summit on Sustainable Development (WSSD) in Johannesburg[175] particularised these commitments for high-seas areas, inasmuch as it called for states to "promote the conservation and management of the oceans through actions at all levels, giving due regard to the relevant international instruments to maintain the productivity and biodiversity of important and vulnerable marine and coastal areas, including within and beyond national jurisdiction."[176] Marine protected areas are among the tools to reach this objective; a representative network should

[173] Kristina M. Gjerde and Graeme Kelleher, "High Seas Marine Protected Areas on the Horizon: Legal Framework and Recent Progress", 15 *Parks* (2005), No. 3, pp. 9-18, at 13 et seqq.

[174] The relevant Chapter 17 on the protection of the oceans is included in Section II (Conservation and management of resources for development), cf. A/CONF.151/26 (Vol. II). As para. 17.86 sets out, "[s]tates should identify marine ecosystems exhibiting high levels of biodiversity and productivity and other critical habitat areas and provide necessary limitations on use in these areas, through, inter alia, designation of protected areas." High-seas ecosystems are not listed among the priorities.

[175] Doc. A/CONF.199/20, *Report of the World Summit on Sustainable Development*, 4 September 2002, p. 6 et seqq.

[176] *Ibid.*, para. 32(a).

be established by 2012.[177] Furthermore, parties to the CBD at COP 2 in 1995 adopted the so-called *Jakarta Mandate on Coastal and Marine Biodiversity*.[178] Within the institutional framework of the CBD, its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) was asked to keep the programme under review. In its review for COP 7, later adopted as a COP decision, it concluded that "there is an urgent need for international cooperation and action to improve conservation and sustainable use of biodiversity in marine areas beyond the limits of national jurisdiction, including the establishment of further marine protected areas consistent with international law, and based on scientific information."[179] This impetus led a newly established CBD *ad hoc* Open-ended Working Group on Protected Areas to choose as one of their main agenda items the question of biodiversity protection in areas beyond national jurisdiction through the establishment of HSMPAs. The WG started its work by exploring the legal requirements and potential benefits of HSMPA designation, as well as options for the cooperation of states to further these issues.[180] The outcome of these efforts is, however, not yet predictable. In a parallel development, UNICPOLOS has also commenced to delve into examining legal aspects related to HSMPAs.[181] Within OSPAR, negotiations commenced on whether and how certain high-seas areas could be included in the OSPAR MPA network.[182]

---

[177] *Ibid.*, para. 32(c).

[178] CBD Dec. II/10. See further, *supra*, Sec. IV. of Chapter 4.

[179] CBD Dec. VII/5, para. 30.

[180] Cf. UNEP/CBD/WG-PA/1/6, *Report of the First Meeting of the ad hoc open-ended Working Group on Protected Areas*, 20 June 2005, para. 38 et seqq.

[181] See A/58/95, *Report on the work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea*, 26 June 2003, para. 70; see also submissions to the meeting in A/Ac.259/8, *The need to protect and conserve vulnerable marine ecosystems in areas beyond national jurisdiction*, 22 May 2003; and A/Ac.259/10, *Protection and conservation of vulnerable marine ecosystems in areas beyond national jurisdiction*, 4 June 2003. So far, discussions have not progressed considerably; cf. A/61/156, *Report on the Work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its Seventh Meeting*, 17 July 2006, para. 99.

[182] MASH 05/8/1-E, *Summary Record*, 3-7 October 2005, para. 5.6. At the 2005 Meeting of the OSPAR Biodiversity Committee's WG on Marine Protected Areas, Species and Habitats, WWF proposed the designation of the "rainbow field", a cluster of hydrothermal vents off the Azores, as an OSPAR MPA, see *ibid.*, para. 5.8 et seq. Decision on the matter was first postponed. Portugal then declared that the rainbow field was located on its continental shelf and is thus, as far as protection of the seabed rather than the water column is concerned, no longer encompassed by the high-seas regime. See OSPAR Commission, *2005/2006 Report on the Status of the OSPAR Network of Marine Protected Areas* (2006), available from <http://www.ospar.org/documents/dbase/publications/p00268_First%20status%20of%20the%20OSPAR%20Network%20of%20MPAS.pdf>; (accessed on 30 September 2006), p. 7. More generally, cf. Daniel Owen, *The Powers of the OSPAR Commission and Coastal State Parties to the OSPAR Convention to Manage Marine Protected Areas on the Seabed Beyond 200 nm from the Baseline*, A Report for WWF Germany (Frankfurt: WWF 2006), p. 12 et seqq.

2. Legal Framework for High-Seas MPAs

Although political declarations such as the 2002 JPOI and action programmes like the Jakarta Mandate are of quite recent nature, it should not be forgotten that, as early as 1982, states had already agreed to similar obligations enshrined in Part XII of UNCLOS, formulated only slightly differently. And in contrast to the former, UNCLOS' general provisions on the protection and preservation of the marine environment possess binding legal force. Even though Articles 192 and 194(5) do not expressly provide for HSMPAs, they universally oblige parties to protect and preserve the marine environment, including rare or fragile ecosystems. This obligation is not confined to areas over which states exercise jurisdiction. Of course, it is qualified by other UNCLOS provisions; in particular those contained in Part VII on the high seas.

According to Article 87 of UNCLOS, the high seas are open to all states and all states are eligible to enjoy its freedoms, which they may exercise, in turn, under the conditions laid down in UNCLOS. As put frankly by one author, "the establishment or designation of marine protected areas is *prima vista* a substantial interference with the regime of the high seas, unless proven to the contrary or tolerated by all States."[183] It may seem that relying on Articles 192 and 194(5) would constitute such a proof, but its existence merely indicates that the freedom of the high seas does not amount to a freedom of pollution. Articles 192 and 194(5) do not warrant the designation of specially protected zones in which all vessels could be subject to anything else than flag-state enforcement. The jurisdictional regime established by UNCLOS permits no interference with this quasi-sacrosanct principle by third states.[184] Yet, in the light of the fact that UNCLOS' general provisions in Part XII reflect international customary law, it can be ascertained that all states are under the obligation to provide for appropriate mechanisms to ensure that these rules are not violated by ships flying their flag. Article 197 furthermore requires them multilaterally to address identified problems also on the high seas. Nevertheless, many deficiencies remain, not least because many states do not seriously live up to their responsibilities. Most of these states – unable or unwilling to adequately enforce compliance with globally agreed rules and standards – would hardly tolerate any encroachment on their jurisdictional supremacy. In addition, there is no international organisation or institution whose competences could counterbalance the absence of coastal states' powers in areas beyond their jurisdiction.[185]

---

[183] Renate Platzöder, "The United Nations Convention on the Law of the Sea and Marine Protected Areas on the High Seas", in H. Thiel and J.A. Koslow (eds.), *supra*, note 139, pp.137-142, at 139.

[184] A few exceptions to that general rule exist, cf. Doris König, *Durchsetzung internationaler Bestands- und Umweltschutzvorschriften auf Hoher See im Interesse der Staatengemeinschaft* (Berlin: Duncker & Humblot 1989), p. 97 et seqq.

[185] Alfonso Ascencio and Michael Bliss, "Conserving the biodiversity of the high seas and deep oceans: Institutional gaps in the international system", contribution to the Cairns High Seas Biodiversity Workshop, 16-20 June 2003, available from <http://www.

The international community has realised that current law of the sea rules impede the establishment of HSMPAs and that a voluntary approach would be prone to "free riders" by possibly exempting the most dangerous users of the area from any commitment. Therefore, as shown in the previous section, states in various fora have commenced talks on how to develop a sufficient legal framework for the designation and protection of HSMPAs. Whatever route this process will go down – one may contemplate the adoption of either an amendment of UNCLOS or an implementation agreement – broad participation will be vital to ensure that the outcome will not be perceived as an instrument designed to accommodate the interests of only a few powerful players. UNCLOS itself can certainly not be seen as an obstacle to an agreement as it encourages its parties to develop further its general provisions.[186] Moreover, the adoption of the 1995 Straddling Stocks Agreement already provides vital evidence of the possibility of introducing mechanisms aimed at governing and protecting high-seas resources.[187] Still, as it stands today, the outcome of negotiations aimed at adopting a HSMPA Convention is uncertain. It is thus essential to study the legal rationale of existing specially protected high-seas areas and whether PSSAs may fill the current legal and institutional gap, at least as regards threats to vulnerable marine areas posed by international shipping.

3. Existing High-Seas Specially Protected Zones

Despite the identified shortcomings in the UNCLOS regime, several types of protected areas have already been introduced on the high seas. Some were established for specific purposes or activities. Two whaling sanctuaries were introduced a long time ago in the Indian and Southern oceans under the International Whaling Convention and three seal reserves under the Antarctic Seals Convention and additional seasonal closures are in operation in Antarctic waters.[188] With respect to vessel-source pollution, two MARPOL special areas in the Southern

highseasconservation.org/documents/bliss-ascencio.pdf>; (accessed on 30 September 2006), p. 26 et seqq.

[186] Cf. Art. 230 and 311(3); see also, *supra*, Sec. III.5. of Chapter 4.

[187] Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, adopted on 4 December 1995, in force as from 11 December 2001, 34 *ILM* (1995) 1542. Most importantly, it envisages a critical role for regional fisheries established to manage particular fish stocks. States need to become members of these bodies in order to be eligible to fish for the stock governed by it. Most commentators argue that this agreement "has the consequence, in effect, of departing from traditional principles reflecting absolute rights of high seas fisheries freedoms, even for those states which are not parties to regional agreements." Philippe Sands, *Principles of International Environmental Law*, Second Ed. (Cambridge: CUP 2003), p. 576.

[188] UNEP/CBD/WG-PA/1/INF/2, *The International Legal Regime of the High Seas and the Seabed beyond the Limits of National Jurisdiction and Options for Cooperation for the Establishment of Marine Protected Areas (MPAs) in Marine Areas beyond the Limits of National Jurisdiction*, Note by the Executive Secretary, 28 April 2005, para. 104.

Ocean (Antarctic area [south of latitude 60 degrees south]) and the Mediterranean were designated pursuant to Annex I and Annexes I and V respectively; furthermore, a marine mammals sanctuary was established in the Mediterranean Sea by a trilateral agreement between France, Monaco and Italy[189], which was included in the SPAMI list.[190] Finally, six fully marine protected areas under the Antarctic Treaty and CCAMLR have been agreed by parties to the ATS, while there are additional sites that are partially marine.[191] It may prove helpful to analyse those features that made it possible for these areas to be implemented on the high seas. In the context of vessel-source pollution, it is sensible to limit the assessment to the MARPOL special areas and the Mediterranean marine mammals sanctuary under the Barcelona Protocol. In both cases, principal flag-state jurisdiction is complemented by the jurisdiction of third states, which is due to the peculiarities of the MAROL concept, as well as to the unique status of the Mediterranean Sea.

As regards the former, MARPOL provisions on the enforcement of its standards take account of the shortcomings that have been observed with respect to certain "flags of convenience". In addition to flag-state powers, it grants port states a special role in the enforcement procedure; participation of the coastal state is not envisaged.[192] The enforcement of MARPOL provisions applicable in special areas therefore need not rely on the jurisdiction of coastal states. Port-state authorities may prosecute a MARPOL violation regardless of where it has occurred. And as MARPOL standards (at least those contained in Annexes I and II) have crystallised into customary international law, the designation of special areas – as a legal basis for prescribing higher standards in parts of the high seas – cannot be construed as constituting an encroachment on the freedoms of the high seas.

With respect to the second example, it should be noted that protective rules applicable for the Mediterranean marine mammals sanctuary provide for enforcement by coastal states despite its extension to areas beyond national jurisdiction. Pursuant to Article 14(2) of the sanctuary agreement, "any of the States Parties is entitled to ensure the enforcement of the provisions of the present agreement [...] within the limits established by the rules of international law, with respect to ships flying the flag of third States."[193] If the parenthesis "within the limits established by the rules of international law" is to be understood as being more than just a waiver of any enforcement rights on the high seas, this provision seems to

[189] Adopted on 25 November 1999, in force as from 21 February 2002. For an overview, see Tullio Scovazzi, "The Mediterranean Marine Mammals Sanctuary", 16 *IJMCL* (2001), pp. 132-141, at 132.

[190] Tullio Scovazzi, "Marine Protected Areas on the High Seas: Some Legal and Policy Considerations", 19 *IJMCL* (2004), pp. 1-17, at 13 et seqq. and *Id.* "New Instruments for Marine Specially Protected Areas in the Mediterranean", in H. Thiel and J.A. Koslow (eds.), *supra*, note 139, pp. 185-191, at 187. For an introduction to the SPAMI mechanism, see Sec. II.2. of Chapter 5.

[191] UNEP/CBD/WG-PA/1/INF/2, *supra*, note 188, *loc.cit.*

[192] Cf. Sec. I.1.a) of Chapter 5.

[193] The English translation of Art. 14 is taken from Tullio Scovazzi, *supra*, note 189, appendix.

contradict the law of the sea framework outlined above. However, it may well be argued that it conforms to these rules. The states bordering the Mediterranean Sea have so far refrained from proclaiming exclusive economic zones (EEZs). The Mediterranean thus only consists of territorial seas and high seas. In addition, had France, Monaco and Italy established EEZs, the sanctuary would be situated wholly in the territorial sea and in the EEZ of these states. On the basis of this observation, a compelling argument can be produced allowing France, Monaco and Italy to enforce measures protecting the sanctuary even against third-state vessels. One may reasonably argue that by ratifying the sanctuary agreement, the parties chose to exercise exclusively one of the sovereign rights they gain under the EEZ concept, namely legislative and enforcement competences with respect to environmental protection, without actually proclaiming an EEZ. *Scovazzi* has aptly narrowed it down to the "simple but sound argument that those who can do more can also do less."[194] Hence, if coastal states do not exceed powers they enjoy under the EEZ concept, they do not violate international law, even though they may interfere with foreign vessels on what are formally high seas.

It is obvious from those two cases that, in certain instances, constraints placed on the designation of HSMPAs by the traditional model of UNCLOS' enforcement jurisdiction may be overcome. In the subsequent question, I shall apply these findings to a possible designation of high-seas PSSAs and consider if and how they could come into existence.

4. Options for the Implementation of the PSSA Concept on the High Seas

The PSSA Guidelines do not prohibit the designation of high-seas areas. In fact, they merely state that "[t]he criteria [used to identify particular sensitivity] relate to PSSAs within and beyond the limits of the territorial sea."[195] It follows from the legal framework set out above that two main problems must be considered. First, one must determine the entity responsible for applying for and subsequently monitoring the PSSA, as there is no obvious institution which would automatically attain that competence. In contrast to the EEZ, there is no obvious *de facto* or *de jure* connection to any coastal state. Secondly, it needs to be established what sort of APMs could be set up on the high seas. With respect to the latter, it suffices to note that any APM could be chosen to be applied on the high seas. However, APMs whose legal basis does not expressly provide for application on the high seas obtain mandatory character by virtue of Article 211(2) of UNCLOS only with respect to the flag state. In an examination of the first problem, three scenarios for high-seas PSSAs may be differentiated from a legal and institutional point of view.

The first category includes PSSAs within the 200 nm zone of a coastal state, or several coastal states, where no EEZ has been proclaimed. In this case, the line of reasoning used for the enforcement powers of state parties to the Mediterranean

[194] Tullio Scovazzi, *supra*, note 190, p. 15.
[195] Para. 4.3.

Marine Mammals Sanctuary Agreement can be followed. If IMO approves the designation of an area, as well as of protective measures, these measures may be enforced by the coastal state(s) to the extent provided for by UNCLOS' rules of reference governing the EEZ.[196]

The second category comprises PSSAs that cover areas within national jurisdiction but that stretch into the high seas, thus lying partly in areas beyond national jurisdiction. If IMO member states agreed to the designation of this kind of area, the decision as such would not violate international law. It is, however, doubtful whether APMs for the high-seas part of the PSSA could have anything else but a recommendatory character. As far as the monitoring and enforcement of APMs is concerned, it would be reasonable to vest powers with the state in whose EEZ parts of the PSSA are. This state could, for instance, provide for vessel traffic services or other navigational aids to those mariners that wish to comply with recommendatory APMs.

PSSAs that are completely high-seas PSSAs fall in the third category, in which all problems associated with HSMPAs culminate. Questions that need to be answered include the entity responsible for the PSSA application, as well as for subsequent monitoring and enforcement. The most appropriate, and arguably the only possible, way to approach the establishment of a high- seas PSSA is for interested states to negotiate a cooperation agreement aimed at setting up an administering body to govern the PSSA.[197] Subsequently, this body would need to seek consensual appointment by IMO member states to manage the area. Management would include the coordination and implementation of protective measures, as well as their enforcement. As one author has rightly pointed out, "[t]his would not be an extension of sovereignty or sovereign rights for the respective States. Instead, the allocation of a special stewardship role to these States would be on the basis of maintaining freedom of the high seas while discouraging ecologically harmful activities. These States could observe, report, and/or prevent activities such as pollution not in accordance with MARPOL; illegal, unregulated or unreported fishing; and dumping of certain wastes at sea. Similarly, the States with stewardship for respective areas of the high seas could coordinate pro-active international efforts aimed at protecting the biodiversity of that area."[198] This approach would not violate UNCLOS provisions on the high seas, as long as all states agree to it. Moreover, nothing in the PSSA Guidelines prohibits such a limited transfer of authority; they envisage applications to be submitted by any "proposing Member Government,"[199] which hence need not be a coastal state. Further assessment and designation procedures within IMO, as described in Chapter 7, are not dependent upon the maritime zone in which the proposed PSSA is located. With respect to APMs, it should be noted that they could be chosen

[196] Cf., *supra*, Sec. I.2. of this chapter.
[197] Regional Fisheries Management Organisations (RFMOs) could be a role model for such a body.
[198] David Osborn, "Challenges to Conserving Marine Biodiversity on the High Seas Through the Use of Marine Protected Areas – An Australian Perspective", in H. Thiel and J.A. Koslow (eds.), *supra*, note 139, pp. 103-112, at 103.
[199] Para. 7.1.

from all measures available under Article 211(6) of UNCLOS, although the most important measures are arguably routeing systems, such as ATBAs, as well as discharge restrictions. Their implementation would lie solely with the flag state by virtue of Article 211(2).[200] In the absence of coastal states, the enforcement actions of other states would not conform to UNCLOS.[201] Still, interested states could use their port-state jurisdiction and modify port-entry requirements so as to foster compliance with APMs. An alternative would be an amendment of SOLAS or other IMO Conventions to allow for the enforcement of protective measures on the high seas.

On a more general note, it needs to be stressed that, despite various difficulties, the designation of high-seas PSSAs as such is feasible. Even if very few APMs could be considered for adoption, the awareness-raising character of PSSAs could thus be used in a broader manner, since the designation of high-seas areas by IMO may exhibit a catalytic role. Once parts of the high seas are recognised by the international community as being particularly sensitive with respect to dangers posed by international shipping activities, further protection awarded within other fora may follow: for instance, proactive activities to protect high-seas biodiversity by international institutions, such as the International Seabed Authority or FAO.[202]

IV. Main Findings

The PSSA Guidelines, adopted as Resolution A.982(24), are an instrument of IMO to provide for the coordinated protection of marine areas that are sensitive to threats posed by international shipping. This chapter has revealed their main implications for jurisdiction, in particular the jurisdiction of the coastal state, over foreign vessels in these areas.

Although the resolution is not binding upon IMO member states, it envisages the employment of certain APMs that do not have a legal basis in existing multilateral treaties. These specific APMs, nevertheless, become binding insofar as they constitute "generally accepted international rules and standards," a term used by UNCLOS in so-called rules of reference to oblige flag states to maintain regulations at a certain standard and to enable coastal states to enact and enforce internationally agreed standards in areas under their jurisdiction. It must be noted, however, that the mandatory character of APMs derived by incorporation into the

[200] *Allan Simcock*, General Secretary, OSPAR Commission and Professor *Rainer Lagoni*, Law of the Sea Institute, Hamburg University, in a discussion in the OSPAR Commission's headquarters on 21 July 2005 argued that mandatory protective measures for high-seas PSSAs may be introduced by IMO on the basis of general obligations in UNCLOS, such as Articles 192 and 194(5). I do not concur with this view.

[201] WBGU, *The Future Oceans – Warming Up, Rising High, Turning Sour* (Berlin: WBGU 2006), p. 29, thus concludes that protected areas on the high seas aimed at preventing vessel-source pollution are impossible to implement. This reasoning is based on the assumption that flag states do not have the capacity to implement adequately their international obligations on vessels flying their flag.

[202] Robin Warner, *supra*, note 172, p. 167.

UNCLOS regime is limited in several ways. First, it is only in respect of the territorial sea and the EEZ that UNCLOS fully provides for this category of reference. In international straits and archipelagic waters, reference is limited to rules and standards related to the discharge of oil, oily wastes and other noxious substances. Furthermore, in their EEZ, states are restricted to enacting laws dealing with the pollution of the marine environment – excluding measures aimed at preventing the physical destruction of habitats. As far as the enforcement jurisdiction of coastal states is concerned, the PSSA status of an area may have the most notable impact in the EEZ, insofar as it contributes to a modification of certain indeterminate legal terms which govern the extent to which coastal states are allowed to interfere with the navigational rights of foreign vessels. Because the high seas are void of any coastal-state jurisdiction, implementation responsibilities wholly rest with the flag state. An additional problem is that no relevant instrument to date provides for the application of protective measures on the high seas. It needs to be stressed, however, that despite various difficulties the designation of high-seas PSSAs as such is feasible. As in other respects, PSSAs could play a catalytic role for the protection of high-seas habitats.

Chapter 11: PSSAs and Ocean Governance: Current Interdependencies and Prospects for Future Developments

Perceptions of scientifically and politically sound ocean governance have undergone tremendous changes during the last decades. Chapter 3 has highlighted the major prerequisites for the adequate protection of sensitive marine areas. In Chapter 4, I have drawn attention to the main components, requirements and limitations of the current governance regime for the world's seas. It has become apparent that scientific necessities are not always easy to align with, and implement under, the law of the sea regime. The PSSA concept, as a legal means to protect vulnerable marine ecosystems, is both part of the prevailing ocean-governance regime and a vehicle for transposing scientific requirements into the legal sphere. It has already been highlighted in Chapter 10 that the PSSA concept may, in some circumstances, expand coastal state jurisdiction over foreign vessels. In this chapter, I would like to embark on a broader approach by exploring whether PSSAs may be said to possess also a catalysing effect with regard to ocean-governance issues.

Against this backdrop and in the light of the development and the application of the PSSA concept, I shall, in the second part of this chapter, examine prospects for the future development of the PSSA concept. Its effective use as a protective means is tested, in particular, by recent designations that have, as we will see, significantly complicated a coherent application of the PSSA Guidelines and threaten its innovative character. It remains to be considered whether there is a need to contemplate modifications to the concept or rather an entirely new regime.